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## OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR THE MONTH OF SEPTEMBER 1925

Grasshoppers seem to be much more prevalent than usual throughout the New England and Middle Atlantic States, extending westward into the Ohio River Valley to Missouri.

Hessian fly emergence is reported as having been first noted in Indiana and Illinois on September 13. Between 10 and 20 per cent of the plants contained eggs on that date at Lafayette. Completed report on losses occasioned by this pest is contained in this number and indicates that 40,000,000 bushels of wheat were lost as a direct result of infestation by this insect. The situation still appears very serious in Kansas, and the fall brood was recorded as having emerged about the middle of August. A detailed statement of results from the Hessian fly field stations in Nebraska is contained in this number of the Bulletin. Egg laying was first observed on August 31. This, however, was sporadic and no further significant egg laying was observed until September 17. From that date to the 24th egg laying rapidly increased and was still heavy when the last report was received (September 25).

The chinch bug is reported as increasing in threatening numbers in the northeastern part of Indiana. This insect is also threatening a considerable area in Illinois and Missouri. Heavy increase is also reported in Nebraska.

The corn ear worm is again prevalent in the southern New England States, Middle Atlantic States, and the Upper Mississippi Valley. Heavy flights were observed in late September in Connecticut and about the middle of September in Indiana and Illinois.

The apple maggot is reported as unusually abundant in Massachusetts and eastern New York and is doing considerable damage in a few localities in Indiana and Michigan.

The San Jose scale was reported as serious in Virginia, Georgia, and Illinois.

The Oriental peach moth is now well established in the Sandhill section of North Carolina. Up to this year this pest was only known from Raleigh and Wilmington in this State.

The Mexican bean beetle is reported from the following additional counties in Indiana: Wayne, Dubois, Martin, Spencer, and Perry. In the current year it has extended its range westward in Kentucky to Christian, Hopkins, McLean, and Hancock Counties, and in Tennessee to Stewart, Benton, and Decatur Counties.

A very serious outbreak of the beet webworm is reported from the Norfolk district of Virginia, some fields having been entirely stripped by this pest. In Nebraska and Kansas a very heavy infestation on Russian thistle is reported, and in northern Utah and southern Idaho this insect is doing considerable damage to the sugar beets.

The most serious infestation of cotton by the bean thrips ever recorded occurred this year in southern California.

In this number of the Bulletin is a general summary of this year's developments of the gipsy moth, brown-tail moth, Oriental moth, and satin moth from the Melrose Highlands Laboratory of the Bureau. During the summer the gipsy moth infestation was generally light except in the Cape Cod section. In the New Jersey infested area there was less infestation than any time since the discovery of this insect in the State. The brown-tail moth situation seems to be about the same as reported last year. Apparently the satin moth has spread greatly during the past season. Poplars and willows were entirely defoliated in many towns from Cape Cod to the southern part of Maine. The range of this pest is now recorded as extending northward to Warren, Me., and Moultonborough, N. H., westward to Wilton and Mason, N. H., and Worcester, Mass., and as occupying the eastern third of Rhode Island.

A serious infestation of a spanworm on larch, Ellopia fiscellaria Guen., is reported from Wisconsin and Michigan.

Infestation of pine by Colaspis sp., in Louisiana, upon which we reported in a previous number of the Bulletin, seems to be decidedly worse than last year, many trees being from half to three-quarters defoliated.

During the month of September very heavy infestations by fleas have been reported from Kansas, Missouri, and Ohio.



## OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR SEPTEMBER, 1925

The poplar vagabond gall, Mordvilkoja vagabunda, is exceedingly abundant in the Prairie Provinces this season.

The European bark louse, Cryptococcus fagi Barendspr., is abundant on dying beech trees throughout a considerable portion of central Nova Scotia, and at Charlottetown, Prince Edward Island.

The outbreak of spruce budworm, Harmolga fumiferana Clem., in the Thor Lake and Thunder Bay districts of Ontario is active again this year.

The corn ear worm has been responsible for serious losses to growers of sweet corn throughout the lower St. John River Valley, New Brunswick, and at Kentville and Middleton, Nova Scotia.

Grasshoppers have been responsible for considerable injury to crops in the Kettle River Valley, in southern British Columbia, especially around Midway and Rock Creek.

The Colorado potato beetle has become firmly established in the southeastern corner of British Columbia, all potato fields in the Cranbrook area now being infested. In Alberta, this insect has been less abundant than for three years past, and appears to be on the decrease.

The rose leafhopper is quite abundant in some apple orchards of the Niagara district, Ontario, this season.

Additional outbreaks of the codling moth in British Columbia have been reported from Nelson, Penticton, and Salmon Arm.

The common housefly has been found in the Banff district, Alberta, at an altitude of 7,000 feet, many miles from any habitation.

Insect injuries to shade trees in the Prairie Provinces have been much less severe this year than usual.

## GENERAL FEEDERS

### GRASSHOPPERS (Acridiidae)

- Massachusetts H. T. Fernald (September 22): Grasshoppers, very generally throughout the State, have been unusually abundant this last month. No particular complaints of unusual injury have been received, but fields and seeded areas and, in some cases, garden crops have shown an unusually large number of these insects. In one or two cases garden crops have suffered severely as a result of the feeding of the grasshoppers.
- Connecticut W. E. Britton (August 15): An owner at Guilford purchased materials to make poisoned bait but before he put it out grasshoppers seemed to disappear. A 10-acre field of alfalfa was reported as quite badly eaten. More abundant this year.
- New York A. D. Long (August 1): A veritable scourge of grasshoppers in many localities in Orange County on oats, alfalfa, and fruit trees.
- Ohio G. A. Runner (September 1): Grasshoppers are unusually abundant in meadows in many localities near Sandusky.
- E. W. Mendenhall (September 11): The grasshoppers are very numerous all over the State and are doing considerable damage to forage crops.
- Indiana J. J. Davis (September 24): Grasshoppers are more or less abundant throughout the State, damaging vegetable and flower garden plots, corn, clover, and alfalfa. Melanoplus femur-rubrum DeGeer is the predominant species although in some few localities M. differentialis Thos. is the species most destructive.
- Illinois W. P. Flint (September 19): Reports of scattered areas heavily infested by grasshoppers continue to come into the office. From field examinations of some of these areas the species Melanoplus femur-rubrum has caused more than 90 per cent damage. Mating is just starting. No egg laying has been observed to date.
- Missouri L. Haseman (September 22): Following the hay harvest the concentration of grasshoppers on corn and other crops has created considerable alarm and they have done considerable damage. There has not been a general epidemic, but an abundance of them over a wide area.

### WHITE GRUBS (Phyllophaga spp.)

- Kansas J. W. McColloch (September 10): White grubs are reported killing blue grass lawns at Larned.

Texas Cooperative Report on status of cotton insects as of August 15:  
T. L. Thomas (August 14): The wingless May beetles have been reported at Amarillo in the Panhandle.

CUTWORMS (Noctuidae)

Virginia Herbert Spencer (August 28): Cutworms are doing considerable damage to the plantings of kale in our trucking section. The growers are using poisoned-bran bait with good success.

WIREWORMS (Elateridae)

Utah G. F. Knowlton and R. Christensen (September 13): Wireworms did serious damage to wheat in the vicinity of Tooele in the early part of the summer.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Indiana W. B. Cartwright (September 19): Oviposition of the Hessian fly on volunteer wheat has been noted since September 18 with infestation by eggs of between 10 and 20 per cent of the plants examined at Lafayette.

Illinois W. P. Flint (September 19): During most of the last month the weather has been sufficiently dry so that very little emergence of the fly has occurred. In the last week heavy rains have occurred over most of the State and adults of the Hessian fly are now beginning to come out. Daily examinations made at Urbana of wheat sown August 31 failed to show any eggs until September 18, when a few eggs were found. It seems probable that heavy emergence will occur during the next week.

Missouri L. Haseman (September 22): The situation on this pest has not changed during the last month. There is an abundance of volunteer wheat this fall, but the wheat growers are adhering to the fly-free date and are eliminating much of this volunteer wheat.

Kansas J. W. McColloch (September 22): We have now completed the analysis of the data on losses caused by the Hessian fly to the 1925 wheat crop. Figures show that this insect reduced the Kansas wheat crop by at least 40,000,000 bushels. During the last month we have made a survey of field conditions and we find that the Hessian fly situation is still alarming. Flaxseeds are numerous in the old stubble throughout the State. For the most part there has been very little emergence during the summer, although there has been an abundance of volunteer wheat. In one area, extending from Ford County to Ellis County, there was a very heavy midsummer brood on volunteer wheat. Just what conditions produced this midsummer brood is somewhat obscure, but apparently it was a combination of two heavy rains, one coming



about the 20th of July and the second about the 1st of August. Samples of volunteer wheat collected at Hays and in southeastern Ford County had as high as 30 flaxseeds per culm on August 20. Fall emergence is now taking place in this volunteer wheat.

There has been a determined effort on the part of the farmers in many counties to follow the program recommended for Hessian fly control. Early harvest this year made early seedbed preparation possible, and there has been ample opportunity to keep down volunteer wheat and prepare a good seed bed. As a result, in some counties every stubble field was turned under by the middle of July and at present it is difficult to find volunteer wheat. Good rains the last few days have put the ground in excellent condition, so that wheat sowing can be delayed until the recommended date with safety. Most of the flaxseeds now contain pupae of the fly and it is expected that the recent rains will bring out the adults within the next few days.

Nebraska M. H. Swenk (September 23): Two Hessian fly field observation stations have been established this fall to determine the earliest safe wheat sowing date to avoid damage by the Hessian fly, one west of Millard (station No. 1), in Douglas County, and the other east of Hastings (station No. 2), in Adams County. The following results have been obtained to date:

Date	Station	Number of puparia : per 100 stubble	Number of flies : emerged	Number of eggs laid on 100 plants
Aug. 27	1	-	12	0
" 28	1	310	16	0
" 29	1	239	10	0
" 30	1	250	12	0
" 31	1	240	2	27
Sept. 1	1	280	6	11
" 1	2	313	0	0
" 2	1	307	0	1
" 2	2	277	0	0
" 3	1	308	1	0
" 3	2	221	0	0
" 4	1	233	0	0
" 4	2	321	0	0
" 5	1	243	0	0
" 5	2	254	0	0
" 6	1	302	3	1
" 6	2	269	4	0
" 7	1	434	14	0
" 7	2	309	19	0
" 8	1	430	1	0
" 8	2	291	54	0
" 9	1	374	2	0
" 9	2	304	72	0
" 10	1	317	1	0
" 10	2	337	106	0
" 11	1	255	1	0
" 11	2	329	40	0
" 12	1	230	0	0
" 12	2	356	66	0
" 13	1	287	0	6
" 13	2	325	16	0



Date	Station	Number of puparia per 100 stubble	Number of flies emerged	Number of eggs laid on 100 plants
Sept. 14	1	235	0	0
" 14	2	267	7	0
" 15	1	411	0	0
" 15	2	319	54	0
" 16	1	333	2	6
" 16	2	267	8	0
" 17	1	234	11	23
" 17	2	284	72	0
" 18	1	316	12	24
" 18	2	281	297	18
" 19	1	355	92	103
" 19	2	305	110	24
" 20	1	348	0	108
" 20	2	282	291	82
" 21	1	488	216	36
" 21	2	243	65	33
" 22	1	526	2	38
" 22	2	296	30	1
" 23	1	411	231	9
" 23	2	282	516	309
" 24	1	427	251	102
" 24	2	275	199	122
" 25	1	396	24	104
" 25	2	474	204	173

#### JOINTWORM (Harmolita tritici Fitch)

Missouri L. Haseman (September 22): From our Hessian fly inspection we have found an alarming infestation of the jointworm in a number of sections south of the Missouri River.

#### FALSE WIREWORM (Elcodes opaca Say)

Kansas J. W. McColloch (September 12): The false wireworm is reported at Ulysses destroying seed wheat as fast as it is planted. Soil is very dry and germination is slow.

#### CORN

#### CHINCH BUG (Blissus leucopterus Say)

Indiana J. J. Davis (September 24): The chinch bug has not done much damage this year but is increasing to conspicuous numbers in the northeastern part of the State.

Illinois W. P. Flint (September 19): During the last month the weather has, on the whole, been favorable to the development of second-brood chinch bugs, and although heavy rains have killed a few of the young bugs in some sections these rains have not been sufficiently heavy to make any material reduction in the number of bugs, and we still expect damage over considerable areas of the State next year. Some flight to winter quarters took place on September 17.

- Missouri L. Haseman (September 22): No appreciable damage was done this year in Missouri by the spring or the summer broods, but in late September many of the cornfields are being found literally alive with the adult chinch bug and the prospects are good that a heavy brood will go into winter quarters in this section of the State.
- Nebraska M. H. Swenk (August 25-September 25): The chinch bugs increased very greatly in abundance because of the successful rearing of the second generation last month and from present indications will go into hibernation in larger numbers over the infested area than they did a year ago.

CORN EAR WORM (Heliothis obsoleta Fab.)

- Connecticut J. L. Rogers (September 21): Moths were flying about hillside, resting on goldenrod. In Bridgeport and New Haven they were observed resting on building near the arc lights. About a 75 per cent increase in the Bridgeport district.
- New York D. L. Hayes (August 1): Considerable loss was occasioned in one large cornfield in Genesee County by the corn ear worm.
- Indiana H. F. Dietz (September 21): Corn ear worm moths were present in a heavy flight at Indianapolis on September 14 and 15 and at Goshen September 16. These moths are still flying in lesser numbers at the present time.
- Illinois W. P. Flint (September 19): A very heavy flight of moths of this insect has been occurring during the last week. Eggs are very abundant on Indian mallow, late corn, and other plants which the insect infests. In some cases large numbers of the eggs of this insect have been found on the heads of fox-tail grass. Recent counts made in fields of corn in the vicinity of Urbana show an average infestation running from 50 to 55 per cent and in a few fields as high as 80 per cent of the ears have been found infested. This infestation is largely by late-brood worms which have hatched during the past two or three weeks.
- Michigan R. H. Pettit (September 1): There exists in the State a belief that sweet corn is poisonous this year for human consumption. This is owing to warnings sent out in other years against feeding green corn affected by the corn ear worm to horses and hogs, together with the quarantining activities which are, of course, new here and which seem to have disturbed the peace of mind of the myriads of tourists who come through Michigan every year to escape hay fever. I am getting inquiries through the mail daily besides answering questions whenever I appear on the street.
- Missouri L. Haseman (September 22): This insect was relatively unimportant until late summer when late sweet and field corn became severely attacked in the central part of the State.



ALFALFA

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Michigan R. H. Pettit (September 23): For the first time this year we have met the fall armyworm working in sweet corn at Goodrich, Genesee County. The specimens are not more than half grown but they are reported as plentiful.

GARDEN WEBWORM (Loxostege similalis Guen.)

Kansas J. W. McColloch (September 10): Webworms are proving troublesome in some alfalfa fields near Hutchinson, Reno County.

ALFALFA CATERPILLAR (Eurytus eurytheme Boisd.)

Arizona Arizona News Letter, Vol. 3, No. 8 (August 31): The alfalfa butterflies were abundant in the Salt River Valley during the early part of the month. Automobiles traveling through the alfalfa districts had their radiators copiously adorned with the bodies of these butterflies.

APHIDIIDAE

Utah George F. Knowlton (September 18): Aphids are still numerous in alfalfa fields in northern Utah where the hay is green.

TARNISHED PLANT BUG (Lygus pratensis L.)

Illinois W. P. Flint (September 19): Adults of this insect have been noted in great abundance in all fields of legumes, particularly soybeans and alfalfa.

VELVET BEAN

VELVET BEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

Florida J. R. Watson (August 29): The velvet bean caterpillar is beginning to do considerable damage to velvet beans in the peninsular part of Florida. This insect has not, for several years past, been as destructive as formerly.

GRASS

A LEAFHOPPER (Draeculacephala mollines Say)

Indiana H. F. Dietz (September 21): The leafhopper Draeculacephala mollines Say appeared in large swarms around lights at Anderson and Indianapolis on the night of September 17.

LEAFHOPPERS

Nebraska M. H. Swenk (August 25-September 25): On the nights of September 17 to 19 large swarms of leafhoppers of several species descended



upon Lincoln to the intense annoyance of all persons working around lights. Some of the stores were forced to close early because of the clouds of insects that were attracted into them by the lights.

BUCKWHEAT

BEAN APHID (Aphis rumicis L.)

New York C. R. Crosby (September 2): Badly infested buckwheat was received from Elmira.

F R U I T I N S E C T S

APPLE

APPLE APHID (Aphis pomi DeG.)

New York C. R. Crosby (August 8): Severe injury to the fruit was noted in one instance in Monroe County.

CODLING MOTH (Carpocapsa pomonella L.)

New York C. R. Crosby and assistants (August 1): During the first week in August considerable injury was reported from Columbus and Greene Counties.

Illinois W. P. Flint (September 19): As was expected, third-brood and late second-brood larvae of this insect have been unusually abundant and caused heavy infestation in all but the most carefully sprayed orchards.

Missouri L. Haseman (September 22): This insect seems to be about normal with other years. In the hail-swept sections of central Missouri it has been difficult to protect the fruit against the pest but there is no unusually heavy epidemic reported from the apple-growing sections of the State.

LEAF CRUMPLER (Mincola indiginella Zell.)

Missouri L. Haseman (September 22): The apple leaf crumpler has been more abundant than usual this summer, particularly on young fruit trees.

LESSER APPLE WORM (Lasiopresia univora Walsh;

Massachusetts W. D. Whitcomb (September 22): A few typical excavations containing half-grown larvae were found in McIntosh and Wealthy apples at Littleton and Gleasondale.

New York D. L. Hayes (August 1): An unusually large amount of injury is being caused by this pest in Genesee County.

A. B. Burrell (August 8): This pest is present in Ontario County in equal proportions to the codling moth in many instances.

APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)

Massachusetts A. I. Bourne (September 22): This generation of the apple and thorn skeletoniser larvae, which are maturing about this time, is unusually large. It has been our experience heretofore in this State that our worst trouble has come from the larvae of the brood which matures about the last of July or early August and we have had very little trouble with the generation which is maturing at this season.

BUD MOTHS (Imetocera cellana D. & S.)

Massachusetts W. D. Whitcomb (September 22): Typical summer injury observed in several orchards at Littleton.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Missouri L. Haseman (September 22): This pest has appeared in greater abundance in Missouri, particularly in southwestern Missouri, then we have ever known it before.

FALL WEBWORM (Hyphantria cunea Drury)

New York W. D. Mills (August 15): Infestations on apple and pear are more commonly found this season than last in Wayne County. It is not a serious pest, however.

RED-HUMPED CATERPILLAR (Schizura coccinea S. & A.)

New York A. D. Long (August 1): Slight infestations of apple and pear have been noted on several occasions in Orange County.

Missouri L. Haseman (September 22): Throughout central Missouri a general though not unusually severe epidemic has occurred.

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

Indiana J. J. Davis (September 24): The yellow-necked apple caterpillar is responsible for defoliating apple trees in several sections of central Indiana.

Missouri L. Haseman (September 22): This has accompanied the red-humped apple worm.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Massachusetts A. I. Bourne (September 22): I find that very generally over the State the apple maggot, or railroad worm, is unusually abundant. It is particularly bad on Wealthies, the apples of this variety being infested to an unusual degree, at least for Massachusetts. There has also been some injury found on the early pickings of McIntosh.



- New York C. R. Crosby and assistants: In the first week in August an unusually large infestation was reported from the eastern part of the State in Columbia and Dutchess Counties. Where two sprays were not applied large losses will undoubtedly be sustained.
- Indiana J. J. Davis (September 24): The apple maggot was reported doing considerable damage to apple in an orchard at Goshen.
- Michigan R. H. Pettit (September 1): I received yesterday a quantity of adult flies of the apple maggot. This material came from Stockbridge, and samples of apples from this orchard show the presence of the apple maggot in excessive numbers, even Spies having been attacked. The owner of the orchard reports that the apples have received six arsenical sprays, the first three having been combination sprays of lime-sulphur and arsenate of lead and the last three, beginning the first of July, were sprays of arsenate of lead and molasses without lime-sulphur.

APPLE LEAFHOPPER (Empoasca mali LoB.)

- New York A. B. Buckholz (August 1): Slight injury noted in Columbia County.

ROSE LEAFHOPPER (Typhlocyba rosae L.)

- Massachusetts W. D. Whitcomb (September 22): Several poorly-cared-for trees are very heavily infested and showing much injured foliage on lower branches at Littleton.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

- Virginia W. S. Hough (September 12): The San Jose scale made its appearance on the fruit in a number of large apple orchards at Winchester in August. From such orchards much fruit is now going to the canning factories and cider mills as a result of this outbreak. All orchards which received a thorough application of winter-strength lime sulfur at the time of the delayed dormant spray are free from the scale on the fruit.
- Georgia O. I. Snapp (September 15): The San Jose scale has increased very rapidly in Georgia peach orchards during the summer.
- Illinois W. P. Flint (September 19): The dry, hot weather of the summer has been particularly favorable to this insect and orchards that were not carefully sprayed last winter are now showing a considerable infestation. With at least one generation still to appear there will be need of special effort in controlling this pest during the coming winter.
- Missouri L. Haseman (September 22): Through the early summer the scale showed no signs of severe increase and this fall we find it still far behind normal abundance on unsprayed trees.



SCURFY SCALE (Chionaspis furfura Fitch)

Indiana J. J. Davis (September 24): I continue to receive reports of abundance in apple orchards throughout the State.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

New York C. R. Crosby and assistants: During the first week of August reports of considerable burning of leaves due to this pest were received from Greene and Dutchess Counties.

Ohio and Pennsylvania G. A. Ruhner (August 27): Injury to peach, apple, and plum from the European red mite is severe in many localities in northern Ohio and Pennsylvania.

Michigan R. H. Pettit (September 22): Miss McDaniel reports to me the finding of the European red spider at St. Johns on apples. The finding was made on the 14th of September and the infestation seems to be fairly serious.

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

New York C. R. Crosby and assistants: During the first part of August reports from the eastern fruit-growing section of the State indicated that damage by this pest was considerably less than usual. Similar reports were received from the western fruit-growing section.

PEACH

PEACH TREE BORER (Agria exitiosa Say)

Georgia O. I. Snapp (September 15): Paradichlorobenzene will again be used extensively for the control of the peach borer. Preparation is being made to place out the material in Georgia next month and it will perhaps take 500,000 pounds to meet the demand in the Southeast this year.

Ohio E. W. Mendenhall (September 24): I find the peach tree borers are very numerous this year in nursery trees and peach orchards. The treatment of paradichlorobenzene seems to be successful in 4- or 5- year-old trees and it is being used quite extensively in peach orchards in Ohio. The infestation of nursery trees is another proposition and many of the trees are ruined for the market and are a loss to the nurseryman.

FULLER'S ROSE BEETLE (Pentomorus fulleri Horn)

Georgia O. I. Snapp (September 18): This insect is present in numbers at Woodbury feeding on the foliage of peach trees in home orchards.

ORIENTAL PEACH MOTH (Laspeyresia molesta Busck)

- Connecticut Philip Garman (September 23): In two orchards where experimental work was done the infestation varied from 22 to 46 per cent in untreated plots. Loss in one large orchard near Wallingford was estimated at 30 per cent for the entire orchard. Infestation was light, apparently, in most other places.
- North Carolina R. W. Leiby (September 18): The oriental fruit moth has appeared this season throughout our commercial Sandhills peach section in potentially threatening numbers, although fairly thorough scouting last year indicated its entire absence. Complaints have also been received from the Piedmont area this season. Prior to 1925 it was known to occur only at Raleigh and Wilmington. In the season of its first occurrence (1925) in the Sandhills from 2 to 3 per cent of the latest commercial variety of peaches (Augbert) showed fruit infestation.
- Georgia O. I. Snapp and assistants (September 15): Sixth-generation moths are now emerging in the insectary. There will be a partial seventh generation here this year.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

- Mississippi R. W. Harned (September 26): The fruit tree barkbeetle, Scolytus rugulosus Ratz., seems to be more abundant and causing more damage than usual to peach trees. The long droughts during the summers of 1924 and 1925 have probably helped to make conditions favorable for rapid increase of these insects. Reports of their work have been received from many parts of the State.

PEACH BARK BEETLE (Phloeotribus liminaris Harr.)

- Ohio G. A. Runner (September 10): The peach bark beetle is abundant in older trees in many orchards in northern Ohio.

GREEN SOLDIER BUG (Nezara hilaris Say)

- Ohio G. A. Runner (September 10): The green soldier bug has caused serious damage to peaches in a number of localities in northern Ohio.

CHERRY

PEAR AND CHERRY SLUG (Caliroa cerasi L.)

- Connecticut W. E. Britten (August 31): Large trees at Stamford and Cromwell were brown from larvae feeding. Usually seen injuring young trees.

RASPBERRY

BLACKBERRY PSYLLID (Trioza tripunctata Fitch)

- Michigan R. H. Pettit (August 28): C. W. Bennett, of the Botany Department brought in a beautiful case of blackberry psyllid, which I



believe constitutes the first record for Michigan. It was obtained north of Traverse City, where it was working on wild raspberries. He reports it as very abundant.

#### GRAPE

##### GRAPEVINE APHID (Macrosiphum illinoisensis Shim.)

New York A. D. Long (August 8): Unusually abundant in several vineyards in Orange County.

##### GRAPE LEAF SKELETONIZER (Harrisina americana Guera)

Arizona Arizona News Letter, Vol. 3, No. 8 (August 31): The grape leaf skeletonizer was found to be present in a vineyard near Glendale. Several vines were slightly injured before the insects were checked.

##### GRAPE LEAFHOPPER (Erythroneura comas Say)

Nebraska M. H. Swenk (August 25-September 25): Several reports of injury to grapes by the grape leafhopper were received during late August and the first week in September from various parts of eastern Nebraska.

#### CRANBERRY

##### CHAIN-SPOTTED GEOMETER (Cingilia catenaria Drury)

Connecticut J. L. Rogers (September 21): A few of the moths were about the buildings in Bridgeport district. About a 50 per cent decrease this year.

##### CRANBERRY FLEA BEETLE (Systena pallicornis Schif.)

Massachusetts A. I. Bourne (September 22): Mr. Lacroix, of the Cranberry Substation at Wareham, reports that the cranberry flea beetle is more abundant than ever recorded in Plymouth County.

#### PECAN

##### FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Arizona Arizona News Letter, Vol. 3, No. 8 (August 31): Two plantings of young pecan trees were found to be infested with the larvae of the flat-headed apple-tree borer. The young trees became completely girdled by the action of the larvae working in the outer wood just beneath the bark of the trees.

Recently in the local papers several articles have appeared giving information concerning the "worm" which is reported as either killing or seriously damaging young pecan trees throughout the valley. Although these articles have all contained some correct data on the work and habits of this insect they were evidently prepared by persons having a very meager knowledge of the life history and habits of the insect.



RED-SHOULDERED SHOT-HOLE BORER (Xylobiops basilaris Say)

Mississippi R. W. Harned (September 26): The red-shouldered shot-hole borer, Xylobiops basilaris, has been received from pecan trees at several points in the State.

WALNUTS

WALNUT BLISTER MITE (Eriophyes tristriatus Nalepa)

Arizona Arizona News Letter, Vol. 3, No. 8 (August 31): The walnut blister mite was sent in from Safford by District Inspector Mendenhall, who reported that the insects were causing serious injury to seedling walnuts planted in a nursery at that place.

CITRUS

MELON APHID (Aphis gossypii Glov.)

Florida J. R. Watson (August 29): The melon aphid has been more abundant than usual during last summer in citrus groves.

APPLE APHID (Aphis pomi DeG.)

Florida J. R. Watson (August 29): The green apple aphid is still much in evidence in citrus groves, although prevented from becoming destructively abundant by inroads of predators and the entomogenous fungi Empusa.

A CICADA (Tibicen olympusa Walk.)

Alabama H. P. Loding through R. W. Harned (August 13): Van Aller found Tibicen olympusa Walk. in great numbers in local Satsuma nurseries during June and early July.

T R U C K - C R O P I N S E C T S

TOMATO

TOMATO WORM (Protoparce sexta Johan)

Mississippi R. W. Harned (September 26): A large green worm is reported as stripping tomatoes at Jackson, Mississippi. This is probably the tomato worm, Protoparce sexta.

CORN EAR WORM (Heliothis obsoleta Fab.)

Mississippi R. W. Harned (September 26): Another insect is reported as boring into young tomatoes in the vicinity of Jackson, Mississippi. This is probably Heliothis obsoleta.

KALE

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Virginia Herbert Spencer (August 28): The false cabbage louse Aphis pseudobrassicae has put in an appearance in the plantings of kale. In some spots it is abundant enough to cause severe damage by stunting the young plants.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

Maryland J. A. Hyslop (September 25): Cabbage worms are very much more troublesome than during the past two years in eastern Montgomery County. The larvae are seriously infesting kale and cabbage.

Illinois G. C. Compton (September 14): Cabbage worms are much more abundant and troublesome than usual in the Chicago district. In Cook County the percentage of parasitism is low and diseased specimens are rare. The past month has been warm and very dry.

Utah G. F. Knowlton and Reed Christensen (September 18): Cabbage worms have done their usual damage this year in this State.

CABBAGE LOOPER (Autographa brassicae Riley)

Mississippi R. W. Harned (September 26): The cabbage looper, Autographa brassicae, is reported as causing serious damage to turnips at Steens, Mississippi.

CABBAGE APHID (Brevicoryne brassicae L.)

New York C. R. Crosby and assistants (August 1): Infestations by the cabbage aphid in Ontario County were found to be slight this year. (August 15): In Wayne County two fields were found where heavy infestations by this aphid on cabbage existed.

Nebraska M. H. Swenk (August 25-September 25): Injury to cabbage by the cabbage aphid was reported from Madison County during the first week in September.

Utah G. F. Knowlton and Reed Christensen (September 18): There has been less damage from the cabbage aphid in Utah this year than usual.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Mississippi R. W. Harned (September 26): Harlequin cabbage bug, Murgantia histrionica, has been reported as injuring collards and similar crops in different parts of the State.



Nebraska

M. H. Swenk (August 25-September 25): At Lincoln during the last few days in August a light infestation of a patch of cauliflower by the harlequin cabbage bug was found. This is the only report we have had of injury by that insect during the year.

### BEANS

#### RED-HEADED FLEA BEETLE (Systema pallicornis Schif.)

New Mexico

J. R. Douglass (August 22): On July 28 this insect was noted attacking a 6-acre field of late planting of beans in the Rio Grande Valley. Beans in poor condition and beetles concentrated on stunted plants.

#### MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Pennsylvania

Neale F. Howard (September 11): This insect was reported from Fayette and Alleghany Counties.

Indiana

Neale F. Howard (September 11): Reported from Dubois, Martin, Perry, and Spencer Counties.

H. F. Dietz (September 21): Specimens collected at Knightstown. A report which is not verified by specimens was received from a locality 3 miles north of Cambridge City.

Kentucky

Neale F. Howard (September 11): Reported from Christian, Hancock, Hopkins, and McLean Counties.

Tennessee

Neale F. Howard (September 11): Reported from Benton, Stewart, Houston, Humphreys, and Decatur Counties.

### MELONS

#### MELON APHID (Aphis gossypii Glov.)

Nebraska

M. H. Swenk (August 25-September 25): Reports of injury by the melon aphid were received up to the first of September.

Arizona

Arizona News Letter, Vol. 3, No. 8 (August 31): Some late water-melons were seriously attacked by the melon aphid in a field south of Phoenix.

### BEETS

#### BEET WEBWORM (Loxostege sticticalis L.)

Virginia

Herbert Spencer (September 18): In the vicinity of Norfolk there is an outbreak of one of the beet webworms, probably Loxostege sticticalis. The crops affected are beets and spinach. Some fields have been stripped bare of these larvae.

Nebraska

M. H. Swenk (August 25-September 25): Reports of the destruction of Russian thistles by the sugar-beet webworm in Deuel County, near



Bigsprings, were received in the second week in September. On some large specimens of this weed as many as 200 or 300 of the webworms could be found and they were also reported as moving in armies.

Kansas J. W. McColloch (September 12): A very heavy infestation of the sugar-beet webworms on Russian thistle was found in Hamilton and Greeley Counties. In many fields the thistles were destroyed. The worms were so abundant that the farmers were afraid to sow wheat.

Utah and Idaho G. F. Knowlton (September 1): Sugar-beet webworms were doing considerable damage to beets around Cornish and Lewiston, and over into southern Idaho.

#### BEEF LEAFHOPPER (Eutettix tenella Baker)

Utah G. F. Knowlton (September 11): Curly-leaf of sugar beets has caused little damage this year in Utah as a general rule, but some fields in Cache Valley and Boxelder County have from 6 to 10 per cent of the beets showing unmistakable symptoms of this disease. The worst infested field found so far is east of River Heights. (September 18): In the northern part of Utah sugar beets have suffered slightly from curly leaf, usually from 1 to 5 per cent of the beets showing damage. The leafhopper causing this is seldom found in large numbers in the fields.

#### BEEF ROOT APHID (Pemphigus betae Doane)

Utah G. F. Knowlton (September 18): Beet root aphids are also numerous and damaging the beets at Clover.

#### WHITE GRUBS (Phyllophaga spp.)

Utah G. F. Knowlton (September 18): White grubs are doing serious damage to sugar beets at Clover in parts of the fields here.

#### CARROT

#### PARSLEY STEALK WEEVIL (Listronotus latiusculus Boh.)

New York C. R. Crosby and assistants: (July 25): Larvae are causing carrot growers much loss in Nassau County.

#### ONION

#### ONION THRIPS (Thrips tabaci L.)

New York C. R. Crosby and assistants (August 8): The damage caused by this pest in Orange County is large. Many fields did not mature before the tops withered (August 15): In Wayne County this pest has been serious this season, causing more damage than the blight.

# S O U T H E R N   F I E L D - C R O P   I N S E C T S

## COTTON

### BOLL WEEVIL (Anthonomus grandis Boh.)

#### GENERAL STATEMENT

B. R. Coad: In Texas weevils are abundant in a few southeastern counties on and near the coast. In northern Louisiana infestations are spotted with severe injury in many fields while in southern Louisiana infestations are generally high. In Arkansas infestations throughout the State are generally light; however, somewhat higher than in 1924. In Mississippi there is a low infestation generally with severe injury in many local areas. In Tennessee spotted high infestations have been reported in the western portion only. In northern Alabama there is a generally light infestation with some injury in local areas and a somewhat higher infestation generally in the southern portion. In northern Georgia weevils were almost completely controlled by climatic conditions while in southern and eastern central Georgia some injury was reported. In western South Carolina and western North Carolina light infestations prevail with generally high infestations in eastern and southern South Carolina and eastern North Carolina.

#### Mexico

A. W. Morrill (September 3): Following an eradication campaign in volunteer cotton fields in June no weevils have been found in Yaqui Valley cotton. Summer rains were more frequent during July and August than during the same period in 1924 when weevils were multiplying rapidly. A few weevils were found attacking wild cotton in city parks at Hermosillo.

### COTTON LEAF WORM (Alabama argillacea Hbn.)

#### Indiana

H. F. Dietz (September 21): One specimen of the cotton moth was collected at Indianapolis on September 15 but no flights have been observed.

#### Mexico

A. W. Morrill (September 7): The cotton leaf worm appeared for the first time in Yaqui Valley, Sonora, during my 4-year observations of cotton insects in that district. Defoliation and severe losses threatened but were prevented by dusting with calcium arsenate at opportune times. One hundred miles north in Hermosillo district leaf worms are present but less abundant.

#### Mississippi

R. W. Harned (September 26): The cotton worm moth, Alabama argillacea Hbn., was reported on September 20 as causing damage to late peaches, figs, and tomatoes at Coldwater, Tate County, Miss. These insects had been appearing in considerable numbers for two weeks previous to that date. Each year when these insects are abundant in the cotton fields the adult moths are reported as causing injury to figs and peaches.



Texas

H. S. Adair (September 22): The cotton leaf worm was reported at Brownwood by county agent C. P. Griffen as doing quite a bit of damage in a few sections of the county the first part of August. The pest has apparently been held in check by the continued dry weather; however, it has been extending its range and recent observation shows quite a bit of feeding in fields which had formerly been free from infestation. No damage to the crop is likely to occur this season.

BOLL WORM (Heliiothis obsoleta Fab.)

Arizona

Arizona News Letter Vol. 3, No. 8 (August 31): The cotton boll worm was reported from several of the cotton districts of the State. No serious outbreak has been reported thus far this season.

A MEALYBUG

Arizona

Arizona News Letter Vol. 3, No. 8 (August 31): A species of mealybug appeared on cotton in the latter part of the month. Three widely separated outbreaks were reported in the Salt River Valley. The most serious of these was near Phoenix south of the Salt River where approximately 2 acres of cotton was partially destroyed by the insects. The outbreak was checked by cutting and burning the infested plants. The lesser outbreaks were found near Mesa and Glendale. At the latter place a heavy rain checked the insects before any material damage was done.

BEAN THRIPS (Heliothrips fasciatus Perg.)

California

E. A. McGregor (September 15): This constitutes the largest and severest case of bean thrips injury to cotton we have ever observed. Not a plant on the entire 350 acres was probably entirely free of the pest. Some spots comprising an area of from 2 to 10 acres had become so severely infested that the plants had become more or less denuded of foliage and only the older bolls were retained. A great deal of damage had resulted. A good many predators were present, especially Triphleps, Rhinacloa, Chrysopa, and reduviids.

COTTON SQUARE DAUBER (Lygus elisus Van D.)

California

E. A. McGregor (September 15): An estimate of 50 per cent damage to cotton is merely a rough approximation and should not be taken as final. A large number of squares and very young bolls were examined, 50 per cent of which had been stung and were doomed to shed. In addition, many of the old dry squares (on the ground or adhering to the stalks) were found to have unmistakable evidence of having been killed by Lygus. Probably this is the severest case of Lygus damage ever observed.



A PLANT BUG (Miridae) (Phytocoris sp.)

Mexico

A. W. Morrill (September 7): A large green species appeared in cotton fields of Yaqui Valley and caused considerable shedding of squares. Adults were very active and difficult to capture. Young stages were frequently found in picking cotton squares for examinations. The same species was abundant in cotton fields in the Hermosillo district.

A TINGITID (Gargaphia iridescens Champ)

Mexico

A. W. Morrill (September 7): A species of tingitid appeared on cotton in the Yaqui Valley in early summer and has been under observation. Although 10 per cent of the leaves were destroyed in some small areas of a few acres each, the insects did not multiply to keep up with the growth of the plants. By the end of the first week in September there was no change in status. The insect has shown possibilities of becoming at times destructive to slow-growing cotton.

SUGARCANE

YELLOW SUGARCANE APHID (Sipha flava Forbes)

Porto Rico

A. H. Rosenfeld (August 29): The attacks of this louse in Porto Rico are always limited to periods of drought and generally to the Uba, or Chinese type of sugarcane, although they at times attack the true Saccharum officinarum varieties on the normally dry and irrigated south coast. In the latter case, however, they are never as numerous as on the Chinese canes, which they may at times entirely kill out in periods of prolonged drought. As it has just rained in the Arecibo district, this outbreak will probably be of slight importance.

SUGARCANE BORER (Diatraea saccharalis Fab.)

Mississippi

R. W. Harned (September 26): We have received specimens of the sugarcane moth borer, Diatraea saccharalis crambidoides. There was nothing to indicate that these insects are especially abundant but they were collected in Wilkinson and Jackson Counties.

# FOREST AND SHADE-TREE INSECTS

## GENERAL FEEDERS

### GIPSY MOTH (Porthetria dispar L.)

#### GENERAL STATEMENT

A. F. Burgess: During the summer of 1925 the gipsy moth infestation over most of the infested area was quite light and no records of defoliation caused by this insect were secured excepting on Cape Cod where there was a very sudden increase of the insect. It has been estimated that on Cape Cod nearly 25,000 acres were completely defoliated and nearly as many more acres were partially defoliated. This heavy defoliation occurred in towns where no large areas were defoliated in the preceding year.

Although the gipsy moth infestation was light over most of the infested area, field observations indicate that it has increased slightly, so that more eggs were deposited this summer than in the previous season.

The Federal scouting and extermination work has been carried on within the barrier zone and New Jersey in cooperation with the States involved. The barrier zone embraces a strip of territory from the Hudson River, N. Y., to the eastern boundary of Berkshire County, Mass., and averages about the same width north to the Canadian border, and south to Long Island Sound. The entire zone has been scouted and only small infestations have been located, all of which have been treated.

In New Jersey the scouting work in the fall of 1924, around the center of the original gipsy moth colony, showed that the infestation had been greatly reduced. Accordingly the scouting in this area was reduced so as to release men to carry on scouting in a strip of territory about 10 miles wide surrounding the entire infested area. This marks the beginning of the closing-in process which will result in a greater reduction of the territory by working from the outside toward the center. Only one small infestation was located within this outside area. This infestation and all of the infestations found in the inside territory have been thoroughly treated. Fewer infestations were found during the year than at any time since the discovery of the gipsy moth in New Jersey.

The gipsy moth situation in the barrier zone and in New Jersey is very encouraging. The gipsy moth infestation located last year by the Canadian authorities at Henrysburg, Quebec, has been thoroughly treated by them and no new infestations have been located.

No change has been made in the quarantine area.

### BROWN-TAIL MOTH (Euproctis chrysorrhoea L.)

#### GENERAL STATEMENT

A. F. Burgess: The brown-tail moth situation continues to be about the same as reported last year. In the southeastern part of New Hampshire and southern Maine there was considerable defoliation in neglected apple orchards but no severe defoliation in woodland areas has been recorded. Over most of the infested area the infestation is very light. No change has been made in the quarantine area.



ORIENTAL MOTH (Cnidocampa flavescens Walk.)

Massachusetts

A. F. Burgess: The Bureau of Entomology has not made a survey of the spread of this insect this season. From casual observations and collections, and from reports of the State of Massachusetts Nursery Inspector it appears that this insect was not unusually abundant this season and that it has not dispersed to any great extent, still being confined within the bounds of greater Boston.

SATIN MOTH (Stilpnotia salicis L.)

GENERAL  
STATEMENT

A. F. Burgess: Field observations indicate that the satin moth has spread greatly during the season. The intensity of the infestation in many sections was very severe. Lombardy, Carolina, and silver poplars and willows were entirely defoliated in many towns from Cape Cod to the southern part of Maine. New dispersion records obtained by the State officials of Maine, New Hampshire, and Massachusetts and the United States Bureau of Entomology show that the satin moth has spread as far north as Warren, Maine, and Moultonborough, N. H. To the west it has reached Wilton and Mason, N. H., and the towns in a line running north and south through Worcester, in Massachusetts. The eastern one-third of Rhode Island and all of the Cape area in Massachusetts are infested.

A SCALE

Nebraska

M. H. Swenk (September 25): One of our county agricultural agents has sent in a branch of what he says is a hackberry tree, and which seems really to be that, considerably infested with a scale. This agent is located in Hall County and says that the trees in one section of Grand Island are badly infested.

A COCCINELLID (Cryptolaemus montrouzieri Muls.)

Porto Rico

A. H. Rosenfeld (August 21): While Mr. Wolcott was here this week, he called my attention to dense clusters of these coccinellid larvae on trunks and branches of bucare trees, Erythrina glauca, assuring me that, before introduction of C. montrouzieri from California by Van Dine in 1911, these trees were practically defoliated by Pseudococcus citri Risso. These mealybugs are now very scarce on the bucares, but the Cryptolaemus does not seem to attack near-by P. calceolariae Mask. on sugarcane, for which purpose it was imported.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S. & A.)

Indiana

J. J. Davis (September 24): The white-marked tussock moth was reported defoliating small plum trees at Union City.



BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Kansas J. W. McColloch (September 15): The bagworm has been reported from Valencia and Manhattan in the past month. This is the first time the bagworm has occurred in any numbers at Manhattan.

FALL WEBWORM (Hyphantria cunea Drury)

Massachusetts A. I. Bourne (September 22): The fall webworm has apparently been slightly more than normally abundant. The larvae are beginning to mature and leave the webs to a considerable extent. This insect has been observed on a number of varieties of trees and shrubs on which we are not accustomed ordinarily to expect it. Of course, almost all the varieties of fruit have been infested.

Connecticut M. P. Zappe (September 24): Roadside trees in some cases have been nearly defoliated in New London County. They appear to be more plentiful this year.

ARBORVITAE

A RED SPIDER (Tetranychus telarius L.)

Nebraska M. H. Swenk (August 25-September 25): Complaints of injury by the red spider continued coming in during the period covered by this report. They were complained of in connection with ever-green trees and a variety of shrubs and herbaceous plants.

BIRCH

BIRCH LEAF SKELETONIZER (Bucculatrix canadensisella Chamb.)

Massachusetts A. I. Bourne (September 22): The birch leaf skeletonizer was somewhat late in making its appearance this season, but at this date it is with us throughout the entire State, and in practically the same abundance as last year.

Connecticut R. B. Friend (September 24): This insect was about as abundant as usual around New Haven. Between Farmington and Winsted it was very abundant, much more so than usual. Most of the larvae had pupated by September 15.

A SAWFLY (Tenusa pumila Klug)

New York G. R. Crosby (September 4): The ends of birch branches only are affected at Mt. Vernon.

BOXELDER

BOXELDER PLANT BUG (Leptocoris trivittatus Say)

- Indiana J. J. Davis (September 24): Boxelder bugs have been reported as very abundant the past month from many localities in the southern two-thirds of the State.
- Illinois W. P. Flint (September 19): The usual number of inquiries concerning this insect are now coming in. The insect is possibly a little more abundant than usual this season.
- Missouri L. Haseman (September 22): There is a general epidemic of this insect throughout the central portion of the State this fall. This is the first heavy infestation since the fall of 1906 or 1907.
- Kansas J. W. McColloch (September 15): The boxelder bug has been attracting more attention than usual. Reports of their presence in excessive numbers have been received from St. Marys, Baldwin, and Erie.

ELM

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

- Ohio E. W. Mendenhall (September 12): The elm bark-louse is very bad in Grandview, a suburb of Columbus. Early spring applications of a miscible oil at the rate of 1 to 15 have given excellent results.

A LACEBUG (Corythucha pallida var. ulmi Osb. & Drake)

- Connecticut W. E. Britton (September 4): Leaves are coated with excrement and cast skins, and dropping freely. This is an unusual attack for Connecticut. Elms are being attacked at Canaan and West Cornwall.

HEMLOCK

A GEOMETRID (Ellopia fiscellaria Guenee)

- Michigan R. H. Pettit (August 28): Today we found one moth in the cage in which we had placed larvae from Leland. These larvae were defoliating hemlock and balsam trees and were working also on several kinds of pine. I take this adult to be Therina fervidana or its synonym fiscellaria; otherwise known as Ellopia fervidaria. This is the first one out and thus far the only one out. (Determined by Dr. Dyar as Ellopia fiscellaria Guen. - J. A. Hyslop). (September 1): Our geometrid, which works on hemlock and its allies, has produced a number of adults and they all prove to be the same species as the one sent on August 28.

Wisconsin

S. B. Fracker (September 21): Hemlocks in Peninsular State Park, Door County, were defoliated in July by a spanworm. Many trees were killed over a large area. Adults now flying are Therina sp., apparently fiscellaria Guenee.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Virginia

W. S. Abbott (August): This insect has been very abundant this season at Vienna. Foliage was very generally and severely injured.

MAPLE

COTTONY MAPLE SCALE (Pulvinaria innumerabilis Rathv.)

New Jersey  
and Ohio

Wm. Middleton (September 3): I have just received two lots of the cottony maple scale; one from Grantwood, N. J., and the other from Cleveland, Ohio.

Ohio

E. W. Mendenhall (September 12): The cottony maple scale is found quite abundant on maple and other plants this year at Columbus and in southwestern Ohio.

Indiana

J. J. Davis (September 24): The cottony maple scale continues to be reported from many sections of the northern half of the State as a very serious pest.

RED-HUMPED OAK CATERPILLAR (Symmerista albifrons S. & A.)

New York

G. R. Crosby (September 24): At least 250 acres of maple and beech were defoliated in Cortland County.

OAK

CALIFORNIA OAK WORM (Phryganidea californica Pack.)

California

D. B. Mackie through T. D. Urbahns (September 16): This insect was noted on August 24 on the hills in the vicinity of Palo Alto, on Quercus agrifolia.

PINE

COLASPIS SP.

Louisiana

F. C. Craighead (September 25): During the season of 1924 our attention was called to severe defoliation of pines by Colaspis sp. This year it seems to be decidedly worse judging by reports of those familiar with conditions last year. Between Bogalusa and Slidell particularly heavy defoliation occurs on longleaf, loblolly, and slash pines. Many trees have been 50 to 75 per cent defoliated and if this continues another year or more it



may result in the death of many of them. All sizes of trees from seedlings 1 foot high to mature trees are attacked. The feeding is extremely local. On the plantations of the Great Southern Lumber Company the worst injury appeared to be on the slightly higher ground in an association where scrub oak occurs. This soil is much lighter and sandier than in the near-by lower ground and it is very probable that these larvae feed on the roots of some plant in this association. The defoliated groups range from a few trees to patches several acres in extent. The limits are well demarcated and adjacent to these severely browned patches perfectly green timber occurs. The needles are gnawed back from the tip but may be bitten off near the base. In cases of severe defoliation all the needles are removed or at least killed down to the leaf sheaths.

Two days later, going west from Bogalusa on the Gulf Coast line, similar injury was observed at various points along the right of way. It was particularly noticeable between Eunice and Kinder, La. At these points some trees are actually dead though this may be the result of the severe drought of last summer and fall. However, some of the trees have only recently died. Longleaf and slash pines are affected at this locality.

#### SASSAFRAS

##### A WEEVIL (Prionomerus calceatus Say)

New York

M. D. Leonard (July 7): Specimens received from Mineola.

#### SPRUCE

##### SPRUCE BUDWORM (Harmoloba fumiferana Clem.)

Maine

H. B. Peirson (June 18): Attacking fir in Somerset County. Twenty-five per cent defoliated. The area infested is 75 acres.

##### SPRUCE GALL APHID (Chermes abietis L.)

Maine

H. B. Peirson (July 13): Red spruce are 80 per cent defoliated by the spruce gall louse. The trees all over Bustins Island, Cumberland County, look brown; on some it is almost impossible to find a green terminal. The woods are in the same condition as the trees in the open. It looks very serious.

#### WALNUT

##### WALNUT CATERPILLAR (Datana integerrima G. & R.)

Indiana

J. J. Davis (September 24): The walnut datana has been reported from many sections of central Indiana as defoliating walnut trees.

Mississippi

R. W. Harned (September 2): We have just received specimens of the walnut caterpillar from our inspector at Moss Point, who states that he has never before seen them so bad in that section of the State.

Missouri

L. Haseman (September 22): There has been an unusual abundance of this caterpillar this season.

# INSECTS ATTACKING GREENHOUSE AND ORNAMENTAL PLANTS

## MISCELLANEOUS FEEDERS

### OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Ohio

E. W. Mendenhall (September 10): I find snowberry plants in a landscape planting at Canal Winchester infested with the oyster-shell scale.

### OLEANDER SCALE (Aspidiotus hederac Vallot)

Nebraska

M. H. Swenk (August 25-September 25): Several complaints of injury to house ferns by the oleander scale were received during the period covered by this report.

## MEALYBUGS

Mississippi

R. W. Harned (September 26): As usual at this time of the year we receive numerous complaints in regard to the mealybug on plants of all kinds. During the past two or three days specimens have been received from McComb, Miss., on fig, from Biloxi, Miss., on magnolia, and from Scott, Miss., on dahlia and night-blooming jasmine.

### COTTONY CUSHION SCALE (Icerya purchasi Mask.)

Louisiana

H. K. Plank and A. W. Cressman (August 20): Subsequent to its first observed reappearance this year on July 21, this scale has been reported growing in abundance, principally on Pittosporum tobira, Rosa spp., Plumbago sp., and Tamarix sp. The Vedalia had almost disappeared by May 12, at which time the scale was practically cleaned up, but is now gradually increasing in numbers as the supply of the scale is increasing.

## GENERAL STATEMENT

H. K. Plank and assistants (August 20): Coincident with the increase of the cottony cushion scale in New Orleans, reports were received of this scale attacking a large number of plants, many of economic importance, at the following places:

Alabama at Laurendine, Theodore, and Mobile.

Mississippi at Biloxi, Gulfport, and Pass Christian.

Louisiana at New Orleans, Slidell, and Lake Charles.

All these infestations were well controlled by the Vedalia before midsummer.

### FERN SCALE (Hemichionaspis aspidistrae Sign.)

Nebraska

M. H. Swenk (August 25 to September 25): Several complaints of injury to house ferns by the fern scale were received during the period covered by this report.



ASTERS

A SOLDIER BEETLE (Chauliognathus pennsylvanicus DeG.)

Nebraska M. H. Swenk (August 25 to September 25): On September 8 a complaint was received that a garden of asters at Lincoln was being destroyed by large numbers of the beetle Chauliognathus pennsylvanicus.

BLACK BLISTER BEETLE (Epicauta pennsylvanica (DeG.))

Indiana J. J. Davis (September 24): The black blister beetle has been reported as destructive to asters in several sections of the State.

CHRYSANTHEMUM

BLACK CHRYSANTHEMUM APHID (Microsiphoniella sanborni Gill.)

Virginia W. S. Abbott (August 29): More abundant than at any time during the last 10 years at Vienna.

CYCLAMEN

CYCLAMEN MITE (Tarsonemus pallidus Banks)

Illinois C. C. Compton (September 12): The cyclamen mite is causing serious injury to cyclamen in the vicinity of Chicago.

DAHLIA

SUNFLOWER WEEVIL (Rhodobaenus tredecimpunctatus Ill.)

Alabama H. P. Loding through R. W. Harned (August 13): Rhodobaenus tredecimpunctatus is beginning to prove a rather serious pest, the larvae in dahlia stems killing many plants. I reared the larvae to maturity, emergence taking place the first week in August.

ROSE

A WHITEFLY (Tetraleurodes ursorum Ckll.)

Alabama H. P. Loding through R. W. Harned (August 13): A white fly determined by Dr. A. C. Baker as Tetraleurodes ursorum Ckll. was found infesting greenhouse roses in Mobile County. As it appeared in great numbers (sometimes as many as 40 pupa cases on a single leaflet) it no doubt would do considerable damage. It seems to respond to spraying with soap and black leaf 40. (September 15): Since my last report Dr. Van Aller has found heavy infestations of this pest on loganberry and outdoor roses and today reported this tiny black case whitefly on Satsumas but very slightly; however, it goes to show that it may take to those and perhaps other evergreens.



LEAF-CUTTER BEE (Megachile sp.)

Nebraska M. H. Suenk (August 25 to September 25): A correspondent in Sioux County reports that the plum and rose trees are being badly injured by the work of a leaf-cutter bee, Megachile sp.

A FLAT-HEADED BORER (Agrilus viridis var. fagi Ratz.)

Connecticut W. E. Britton (September 8): Work of this insect was sent in from Darien. It is the first record for Connecticut.

Michigan William Middleton (September 3): We have received an interesting sending of Agrilus viridis L. var. fagi Ratzburg from rose, from Ann Arbor, Mich.

FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Arizona Arizona News Letter Vol. 3, No. 8 (August 31): Roses were found to be attacked also by the flat-headed apple tree borer in a back yard planting on a city lot in Phoenix.

MOSSY ROSE GALL(Rhodites) Diplolepis rosae L.)

Michigan William Middleton (September 3): The mossy rose gall is occurring in tremendous numbers on Beaver Island, Mich.

INSECTS ATTACKING MAN AND

DOMESTIC ANIMALS

MAN

MOSQUITOES (Culicidae)

Michigan R. H. Pettit (August 28): The city of Detroit is now suffering from an epidemic of mosquitoes. It seems that a few weeks ago very heavy rains flooded part of the city and at the present time the great numbers of mosquitoes have necessitated the use of oil on their breeding places, to a degree that has been heretofore unknown.

FLEAS (Siphonaptera)

Kansas J. W. McColloch (September 15): Fleas have been exceptionally bad about Manhattan during the last month. Reports have also come to hand from Horton and Wichita.

HORSES

THROAT BOT FLY (Gastrophilus nasalis L.)

Ohio F. C. Bishopp (August 27): All horses are well infested with eggs of the throat bot fly at Columbus. The eggs of this species seem to be equally as abundant as those of Gastrophilus intestinalis. Much annoyance to horse is reported from the attack of this fly.

HORSE BOT FLY (Gastrophilus intestinalis DeG.)

Ohio F. C. Bishopp (August 27): The adults of this species have increased in numbers during August at Columbus and practically all horses are now well infested with eggs. The flies are reported as bothering horses considerably in the harvest fields.

Illinois W. P. Flint (September 19): Adults of this insect have been very abundant during the last month. In one case an adult was observed to deposit six eggs on the hairs of the arm of a man working in the field.

CATTLE

STABLE FLY (Stomoxys calcitrans L.)

Ohio F. C. Bishopp (August 27): Stable flies fell off slightly in numbers during August at Columbus but were still very annoying to stock at the end of the month. Some herds show an average of 100 per animal feeding at one time.

Michigan R. H. Pettit (August 28): Unusual numbers of stable flies are present in the vicinity of Grayling, where they made themselves conspicuous during the annual military camp held at that place.

Texas C. G. Babcock (September 8): Flies are beginning to appear in small numbers.

HORN FLY (Haematobia irritans L.)

Ohio F. C. Bishopp (August 27): The horn fly has continued to seriously annoy all classes of cattle throughout August at Columbus, although there has been some reduction in numbers during the latter half of the month. Some dairy herds show an average of about 1,500 per head on this date. Most dairymen are using sprays.

SCREW WORM (Cochliomyia macellaria Fab.)

Ohio F. C. Bishopp (August 27): Screw worm flies have increased some in this locality (Columbus) during August. At rendering plants

the percentage of flies present on this date is about as follows:

	<u>Per cent</u>
<u>Phormia regina</u> . . . . .	60
<u>Chrysomya macellaria</u> . . . . .	20
<u>Musca domestica</u> . . . . .	18
<u>Lucilia</u> spp. . . . .	2

### HOGS

#### FLEAS (Siphonaptera)

Missouri

Wm. Moore (September 29): One of our men has conducted a survey of the State of Missouri on the relative abundance of the human flea in association with hogs raised in this State. Very heavy and serious infestation was found in the northwestern and central parts of the State, extending eastward to Mercer, Macon, Boone, and Callaway Counties and southward to Cole, Morgan, and Cass Counties. A more lightly infested area extends to the eastern boundary of the State and southward to Jefferson, Maries, Hickory, and Barton Counties. The southern third of the State seems to be practically uninfested.

### POULTRY

#### CHICKEN MITE (Dermanyssus gallinae Redi)

Missouri

L. Haseman (September 22): As the summer advanced the abundance of the mite seemed to decrease and few complaints were received during the month.

#### LARGE BODY HEN LOUSE (Menopon biseriatum Piaget)

Texas

O. G. Babcock (September 8): Poultry lice have been extremely numerous during the last four to six weeks. In many cases birds were so heavily infested as to become emaciated. These birds revived rapidly after treatment with sodium fluoride. A peculiar feature of this infestation was that seriously infested birds did not show the usual paling of the wattles and comb.

#### STICKTIGHT FLEA (Echidnophaga gallinacea Westw.)

Arizona

Arizona News Letter Vol. 3, No. 8 (August 31): The sticktight flea was found to be causing considerable concern to a dog belonging to one of the veterinarians of Phoenix. The insects had attached themselves to the ears and the efforts of the pup to remove them were far from successful.

#### SAND FLEA (Siphonaptera)

Missouri

L. Haseman (September 22): This pest for the first time has broken out as an epidemic on a large poultry farm in southeastern Missouri.



# INSECTS INFESTING HOUSES

## AND PREMISES

### CAT AND DOG FLEAS (Ctenocephalus canis Bouché and C. felis Bouché)

Ohio

F. C. Bishopp (August 27): Reported in many localities in the central States as infesting houses in towns and cities and on farms. The abundance of the insects is probably no greater than normal for this season.

### HUMAN FLEA (Fulex irritans L.)

Ohio

F. C. Bishopp (August 27): Reported in many localities in the central States, as infesting houses in towns and cities and on farms. The abundance of the insects is probably no greater than normal for this season.

### A STINK BUG (Thyanta custator Fab.)

Nebraska

M. H. Srenk (August 25 to September 25): It was reported during the first week in September that in Harlan County, in the vicinity of Orleans, great swarms of the stink bug Thyanta custator were attracted to the street lamps so that the walks around them were a thick mass of crushed bugs, and the bugs also swarmed into houses

### CARABID BEETLE (Nomius pyanaeus Dej.)

Michigan

R. H. Pettit (August 26): I received today 20 or 30 specimens of a small carabid beetle from which emanates an odor similar to that of sewer gas. It is reported to be very plentiful in some boarding houses at Ramsey- away up north. (September 8): To quote a correspondent from Ramsey: "We are having trouble with an epidemic of so called 'sewer bugs' which are infesting our company boarding house and a few other houses in Ramsey. We are at a loss to account for the source of these vermin and would be glad to find a way to get rid of them. The character of the vermin is that when they are killed the odor is very offensive and analogous to the odor of sewer gas." Also reported from Gogebic County.

### TERMITES

Indiana

J. J. Davis (September 24): Frequent inquiries have been received about white ants. Reports usually refer to injury to buildings. One correspondent reports injury to rhubarb.

Kansas

J. W. McColloch (September 19): Two reports of termite injury have been received during the last month. Much of the woodwork in a house at Manhattan has been destroyed. This house was rebuilt last year owing to termite work. A report from Gardner states that the termites are just starting in the woodwork in a house there.

Arizona Arizona News Letter Vol. 3, No. 8 (August 31): Termites or "white ants" damaged a rug in a Phoenix residence by completely eating out the fiber material. They gained entrance near the fireplace and before their presence was discovered had started work on the rug.

#### COCKROACHES

Indiana J. J. Davis (September 24): Cockroaches were becoming so abundant and annoying in the business section of one city in southern Indiana that a request for a control demonstration was made. The demonstration proved very effective.

Kansas J. W. McColloch (September 15): Cockroaches have been reported abundant in houses at Wichita and Topeka. A very heavy infestation was found in a cafe at Manhattan.

#### SLUGS

Indiana J. J. Davis (September 24): Slugs have been reported recently as troublesome in cellars.

#### HOUSE FLY (Musca domestica L.)

Ohio F. C. Bishopp (August 27): The house fly, which was very abundant and troublesome during July and early August, has decreased considerably in numbers at this date. About the usual number of cases of dysentery have occurred this summer and many of them seem traceable to contamination of food by house flies, especially during picnics.

Texas O. G. Babcock (September 8): For the last two weeks the house fly has been more numerous than normally at Sonora for this season of the year.

#### POWDER-POST BEETLES (Bostrichidae)

Nebraska M. H. Svenk (August 25 to September 25): From Merrick County early in September came a report of the destruction of a cattle barn made mostly of cottonwood lumber by powder-post beetles.

# INSECTS INJURIOUS TO STORED PRODUCTS

## BEAN WEEVIL (Mylabris obtectus Say)

Missouri L. Haseman (September 23): The common bean weevil has been complained of.

## MEDITERRANEAN FLOUR MOTH (Ephestia kuehniella Zell.)

Missouri L. Haseman (September 22): The Mediterranean flour moth has been reported as abundant during the month.

## ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)

Missouri L. Haseman (September 22): The Angoumois grain moth has been reported as abundant during the month.

## FOREIGN GRAIN BEETLE (Cathartus advena Walt.)

Nebraska M. H. Swenk (August 25 to September 25): A majority of the complaints relate to infestation with two species of grain beetle - the saw-toothed grain beetle and the foreign grain beetle.

## SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis L.)

Nebraska M. H. Swenk (August 25 to September 25): Stored grain pests have been complained of rather freely during the period covered by this report. A majority of the complaints relate to infestation with two species of grain beetle - the saw-toothed grain beetle and the foreign grain beetle.

## INDIAN-MEAL MOTH (Plodia interpunctella Hbn.)

Indiana J. J. Davis (September 24): Reported as damaging peanuts in storage.